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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/617,565

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Li Nie

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03/24/2008

LATHROP & GAGE LC
4845 PEARL EAST CIRCLE
SUITE 300
BOULDER, CO 80301

EXAMINER

WEIER, ANTHONY J

ART UNIT

PAPER NUMBER

1794

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DELIVERY MODE

03/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/617,565	Applicant(s) NIE ET AL.	
	Examiner Anthony Weier	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 17-23, 26 and 45-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 24, 25, 27-44 and 50-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/24/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-16, 24, 25, 27-33, 41, 42, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/13521 (Wang et al) with evidence from Kitabatake et al.

Wang et al discloses a resin formation formed into a pet chew treat wherein said resin formulation may contain animal protein (e.g. egg white) and plant protein (e.g. wheat, corn) wherein same may be used alone or in combination and wherein said protein may be either native or hydrolyzed, said formulation being palletized (page 8). Example 7 discloses the use of approximately 50% soy protein isolate (e.g. the grain protein called for in the instant claims) and approximately 10% animal protein or protein derivative of same. Although it is not specified in this example that the animal-derived protein is hydrolyzed, it would have been obvious to one having ordinary skill in the art to have hydrolyzed same (with or without the grain protein) to contribute to or provide better processing flowability (see page 3). As for the particular molecular weight of said protein (instant claims 24 and 25), absent a showing of unexpected results, it would have been further obvious to have arrived at same as a matter of preference depending on the particular protein moiety available or the cost of same.

Wang et al also discloses the presence of a plasticizer (e.g. glycerol) in an amount of as high as 30%, water as low as 10% (see claim 1), and vegetable powders (as the additional ingredient of claim 41) in an amount of, for example, 2% in Example 7.

The claims further call for the grain protein in the pellets to be substantially undenatured. Although Wang does provide in the examples a temperature strategy for extruding the pellets, there is no restriction on the temperature to be used other than providing a product having good flow when used in preparing the injected molded article. It should be further noted that with respect to the temperatures strategy employed, for example, in Example 1, would not result in a grain protein that is denatured if the moisture content is low enough. Wang et al further discloses using a moisture content of as low as 10% (see Claim 1), and it would have been further obvious to one having ordinary skill in the art at the time of the invention to have employed same as a matter of preference within the compositional scope claimed therein. Use of such low moisture would require much higher temperatures than called for in the instant claims to achieve fully denatured soy protein as evidenced in the study of Kitabatake et al (e.g. inset graph of Figure 6) . Moreover, even if the moisture content is higher, it is expected that the speed of treatment in during extrusion would not allow for significant denaturation to occur, thus providing a product that is substantially undenatured.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al and Axelrod et al (U.S. Patent No. 6159516).

The claims further call for the presence of the protein originating from chicken liver. Such are well known as taught, for example, by Axelrod et al that teaches a molded chewable pet food which contains a liver protein material (col. 8, lines 55-62). It would have been obvious to

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one having ordinary skill in the art at the time of the invention to have included liver protein in the product of Wang et al as a matter of preference depending on what protein is available, the cost of same, and the nutritional needs of the pet and to have further hydrolyzed same as discussed in the rejection above.

4. Claim 34, 35, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al and Pater et al.

The claims further call for the presence of a lubricator in amounts and type as called for in the instant claims. Pater et al discloses a molded chewable pet food containing lubricants such as fatty acid derivatives and in amounts as high as 5%. It would have been obvious to one having ordinary skill in the art at the time of the invention to have included same for the art recognized flow enhancing effect attributed to same.

The claims also call for the presence of a mold release agent. Pater et al further teaches incorporating same (calcium stearate; see claim 12). It would have been further obvious to have included same for such art recognized use. As for the amount of same employed, such would have been well within the purview of a skilled artisan, and it would have been further obvious to have arrived at same through routine experimental optimization.

5. Claims 34-36, 38-44 and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al and Jane et al.

The claims further call for the presence and amount of a particular reducing agent. Jane et al teaches an edible molded article (which may be used for pets; col. 7, lines 49-60) prepared from a soybean material wherein a reducing agent such as sodium pyrosulfite (i.e. sodium metabisulfite) is incorporated to aid in the dispersibility of the protein component in preparing

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the material to be molded (e.g. col. 1, lines 23-37; claim 10). It would have been obvious to one having ordinary skill in the art at the time of the invention to have employed same in the Wang et al product for such reason.

The claims also call for the presence of modified starch of a particular type and amount. Jane et al further teaches the use of a chemical modified starch and a starch sourced from, for example, wheat or corn (e.g. col. 3, lines 54-67) wherein same is used in conjunction with soybean protein material. It would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated such starch as a filler to provide “better flowability, better water resistance, and to decrease the cost of same” (col. 3, line 47-53). As for the amount of same to be used, Jane et al teaches the preparation employing 20-30% of same. It would have been further obvious to have employed such amount in Wang et al for such benefit.

The claims further call for a mold release agent and amount of same. Jane et al teaches such an agent (e.g. lubricant; col. 4, lines 31-36), and it would have been further obvious to have incorporated same for such reason. It would have been well within the purview of a skilled artisan to determine the particular amount of agent to be used, and it would have been further obvious to have arrived at such amount as a result effective variable.

The claims call for the presence of a lubricant such as fatty acid. Jane et al further teaches the use of same (col. 4, lines 31-36), and it would have been further obvious to have employed same for the reasons above: to facilitate the removal of the product from its molding device. It would have been well within the purview of a skilled artisan to determine the particular amount of agent to be used, and it would have been further obvious to have arrived at such amount as a result effective variable.

Response to Arguments

6. Applicant's arguments filed 1/24/08 have been fully considered but are moot in view of the new grounds of rejection which includes evidence provided by Kitabatake et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Weier whose telephone number is 571-272-1409. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Anthony Weier
Primary Examiner
Art Unit 1761

/Anthony Weier/
Primary Examiner, Art Unit 1794

Anthony Weier
March 17, 2008